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PATENT
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Ron Maurer

Confirmation No. 3319

Serial No. 09/676,866
Filed: September 29, 2000

Examiner Ishrat Sherali
Group Art Unit: 2621

For: REDUCTION OF CHROMATIC BLEEDING ARTIFACTS IN IMAGES CONTAINING SUBSAMPLED CHROMINANCE VALUES

Mail stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicant requests review of the final rejection dated February 9, 2006.

No amendments are being filed.

This request is being filed with a notice of appeal.

The review is requested for the reasons stated in the attached sheets.

Respectfully submitted,

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Pages: 5

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office on May 9, 2006.

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Date: May 9, 2006

ARGUMENTS

Claims 1-18, 20-34, 36-43, and 45-48 are pending in this application.

Claims 5-13 and 20-27 are allowed.

Claims 4, 37-39, 42-43 and 46-48 are objected to.

Claims 1-3, 14-18, 28-34, 36, 40-41 and 45 are rejected

A '102 rejection of base claims 1, 16 and 29 contains legal error because a claimed feature is ignored.

The final office action dated February 9, 2006 indicates that base claims 1, 16 and 29 remain rejected under 35 USC §102(e) as being anticipated by Harrington U.S. Patent No. 6,031,581.

Base claim 1 recites a method of reducing chromatic bleeding artifacts in a digital image. The method comprises reducing chrominance values of at least some pixels in the digital image. The chrominance value of a pixel is reduced by an amount that is ***scaled according to its chromatic dynamic range*** (***emphasis added***).

The chromatic dynamic range for each pixel of interest may be computed as the difference between minimum and maximum chroma values of the pixels in a local neighborhood (page 4, lines 22-24). The chroma value is modified with respect to chromatic dynamic range so as not to reduce chromaticity too much in regions with essentially uniform bright colors (page 4, lines 11-13).

Harrington does not teach or suggest reducing the chrominance value of a pixel by an amount that is ***scaled according to its chromatic dynamic range***. Harrington modifies a chrominance edge so it looks more like a luminance edge (Abstract, lines 6-8; col. 2, lines 28-32; col. 4, lines 20-23; col. 4, lines 62-64; and col. 5, lines 5-10). Scaling is performed with luminance values, not chrominance values (col., 5, lines 5-14) Harrington also limits the amount that a chrominance edge can be modified. The modified output value is limited by the minimum and

maximum of a local neighborhood (col. 5. lines 15-22). That is, the chrominance edge can be increased to the local minimum, or decreased to the local maximum.

The examiner cites passages at col. 5, lines 15-30 and col. 6, lines 48-59 of Harrington. However, the passage at column 6 is part of a claim that recites revising a chrominance value between a local minimum and local maximum. The passage at column 5 simply recites how the chrominance edge is modified. If the adjusted chrominance value is below a minimum, it is increased to the minimum. If the adjusted chrominance is above a maximum, it is reduced (clipped) to the maximum. No scaling is involved.

Harrington's method might reduce a chrominance value, and it might reduce it to a local maximum, but it does not reduce it by an amount that is ***scaled according to its chromatic dynamic range***. Thus, the examiner ignores the claim limitations about reducing the chrominance value of a pixel by an amount that is ***scaled according to its chromatic dynamic range.***

Because Harrington does not disclose each limitation of claim 1, the '102 rejection of base claim 1 should be withdrawn. Because Harington does not suggest reducing the chrominance value of a pixel by an amount that is ***scaled according to its chromatic dynamic range***, base claim 1 should be allowed over Harrington.

Base claims 16 and 29 also recite that the chrominance values of pixels are selectively reduced by amounts that are scaled according to chromatic dynamic ranges. For the reasons above, the '102 rejections of base claims 16 and 29 should be withdrawn, and these base claims should be allowed over Harrington.

A '103 rejection of base claim 15 contains legal error because claimed features are ignored.

The final office action indicates that base claim 15 is rejected under 35 USC §103 as being unpatentable over Harrington.

Claim 15 also recites selectively reducing pixel values by amounts that are scaled according to chromatic dynamic ranges. This claimed feature is ignored, as discussed above.

Claim 15 further recites that no chrominance values in the digital image are increased according to chromatic dynamic ranges. This additional feature further distinguishes the claimed scaling operation from Harrington's method, which allows chrominance values to be increased to a local minimum. This additional feature is also ignored.

Harrington does not teach or suggest these claimed features. Therefore, base claim 15 should be allowed over Harrington.

A '101 rejection of claim 36 contains legal error with respect to statutory subject matter.

The final office action rejects claim 36 under 35 USC §101 for reciting non-statutory subject matter. Claim 36 recites "An article for a processor, the article comprising memory encoded with instructions for instructing the processor to reduce chromatic bleeding artifacts...."

The office action alleges that an article comprising "memory encoded with instructions" is non-statutory subject matter. However, no legal support or evidence is cited for the allegation. The allegation is arbitrary and capricious.

The office action also alleges that claim 36 should be limited to a "computer readable medium." Figure 4 shows an exemplary implementation involving a computer. However, the specification does not limit the memory to computer memory. Page 9, lines 8-9 of the specification states that a method according to the present invention may be implemented in hardware, software or a combination of the two. For example, a method according to the present invention may be implemented in a platform that uses a dedicated processor and memory instead of computer processor and computer memory.